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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/491,429    01/26/00    HEANUE

J    SEA5112

MMC1/0509

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EXAMINER

RODRIGUEZ, A

ART UNIT

PAPER NUMBER

2877

DATE MAILED:

05/09/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/491,429

Applicant(s)

HEANUE ET AL.

Examiner

Armando Rodriguez

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9,13,15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al (PN 5,771,252).

In figure 5 Lang et al illustrates a source (10) for providing light, a diffractive element (12) position from the source to redirect the light at a distance, a reflective element (18A), having a rotational pivot point, positioned from the diffractive element by a distance to receive the light from the diffractive element, which redirects the light back to the diffractive element, where the diffractive element redirects the light from the reflective element to the source.

In the abstract Lang et al discloses the wavelength selected by rotational and translational movement of the reflector and the path length of the cavity is substantially identical to a numerical integer of half the wavelengths.

Lang et al does not disclose expressly the micro-actuator to select the wavelength, however micro-actuator are known throughout various arts and have many uses, as rotation and translation.

Lang et al discloses the claimed invention except for the micro-actuator. It would have been an obvious matter of design choice to use a micro-actuator, since such a

modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

In re Ross, 105 USPQ 237 (CCPA 1955)

Claims 10-12, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al (PN 5,771,252) as applied to claims 2, 13, 16 above, and further in view of Fouquet et al (PN 5,434,874).

Lang et al does not disclose a tunable Fabry-Perot laser having a wavelength within the range of 1520nm -1560nm.

Fouquet et al discloses a tunable Fabry-Perot laser capable of producing a wavelength of 1550 nm, disclosed in column 4 lines 3-12 and column 9 lines 47-53.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to Lang et al light source with Fouquet et al light because it provide a wavelength within the range of 1520nm – 1550 nm.

Therefore, it would have been obvious to combine Fouquet et al with Lang et al to obtain the invention as specified in claims 10-12, 14, 20.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is (703) 308-6218. The examiner can normally be reached on 10-hour day / M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703) 308-4881. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Armando Rodriguez  
Examiner  
Art Unit 2877

  
Frank G Font  
Supervisor  
Art Unit 2877

Ar/FGF  
May 2, 2001